

AQUARIUS S / RS / P - MID

SINGLE-JET METER

DIEHL
Metering



APPLICATION

Sub metering

FEATURES

- ▶ Single-jet meter of dry-running design
- ▶ Modularity with the IZAR system world
- ▶ Excellent starting flow rate
- ▶ Low pressure loss
- ▶ Installation position: horizontal, vertical
- ▶ Compact design
- ▶ Rotatable counter
- ▶ Shield against static magnetic fields according to VDDW standard and EN 14154

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GENERAL

| AQUARIUS S / RS / P | |
|-------------------------------------|-----------------------------------|
| Medium temperature range cold water | °C 0 ... 30 |
| Medium temperature range warm water | °C 0 ... 90 |
| Nominal pressure | PN bar 10 |
| Display range | 0.1 l ... 9,999 m ³ /h |
| Ambient operating temperature | °C +5 ... +55 |
| Ambient storage temperature | °C 0 ... +50 |
| Environmental class | B |
| Protection class | IP 54 |

VERSIONS



AQUARIUS S



AQUARIUS RS



AQUARIUS P

| Permanent flow rate | Q ₃ | m ³ /h | 2.5 | 2.5 | 2.5 | 4 |
|--|----------------|-------------------|----------|----------|----------|----------|
| Overall length | L | mm | 80 | 110 | 130 | 130 |
| AQUARIUS - radio segment retrofittable | | | • | • | • | • |
| AQUARIUS plastic housing - radio segment retrofittable | | | - | • | - | - |
| AQUARIUS - radio segment mounted | | | • | • | • | • |
| AQUARIUS plastic housing - radio segment mounted | | | - | • | - | - |
| AQUARIUS - pulse output | | | 10 / 100 | 10 / 100 | 10 / 100 | 10 / 100 |

Note:

AQUARIUS S: radio segment IZAR RS 868 retrofittable.

AQUARIUS RS: with mounted and configured radio segment IZAR RS 868 on request.

¹AQUARIUS P: with pulse output by reed switch, cable length 2 m, contact rating 24 V ~ 0.2 A, max. cable length 20 - 50m (depending on electrical perturbation). Switching amplifier have to be used at a longer distance. The meter (10 l or 100 l) is delivered tested but not conformity declared.

APPROVAL

| AQUARIUS S / RS / P | |
|--|--|
| Approval | MID DE-14-MI001-PTBB006, OIML R49, EN 14154, KTW |
| Dynamic range (Q ₃ /Q _i) | R 80 H / 40 V 40 |
| Dynamic range (Q ₃ /Q _i) with pulse output ¹ | R 80 H / 31.5 V 40 H / 31.5 |

AQUARIUS S / RS / P - MID

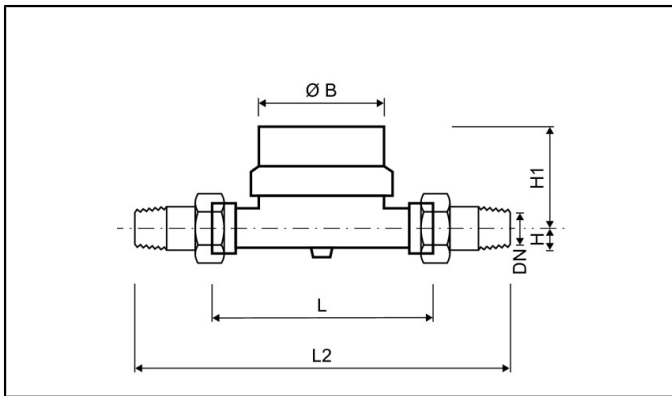
SINGLE-JET METER

TECHNICAL DATA

| | | | | | | |
|-----------------------------------|----------------|-------------------|--------------------|--------------------|--------------------|-----------------|
| Permanent flow rate | Q ₃ | m ³ /h | 2.5 | 2.5 | 2.5 | 4 |
| Overall length | L | mm | 80 | 110 | 130 | 130 |
| Nominal diameter | DN | mm | 15 | 15 | 15 | 20 |
| Overload flow rate | Q ₄ | m ³ /h | 3.125 ² | 3.125 ² | 3.125 ² | 5 ² |
| Transitional flow rate horizontal | Q ₂ | l/h | 50 ² | 50 ² | 50 ² | 80 ² |
| Minimum flow rate horizontal | Q ₁ | l/h | 31 ² | 31 ² | 31 ² | 50 ² |
| Starting flow rate horizontal | | l/h | 8 | 8 | 8 | 12 |
| Pressure loss at Q ₃ | | bar | 0.63 | 0.63 | 0.63 | 0.63 |

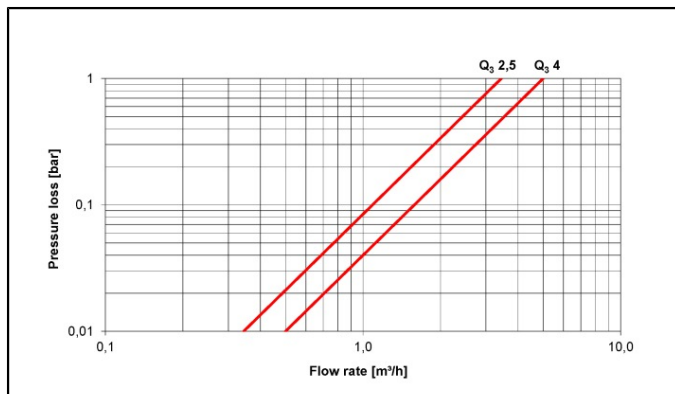
² at R 80

DIMENSIONS

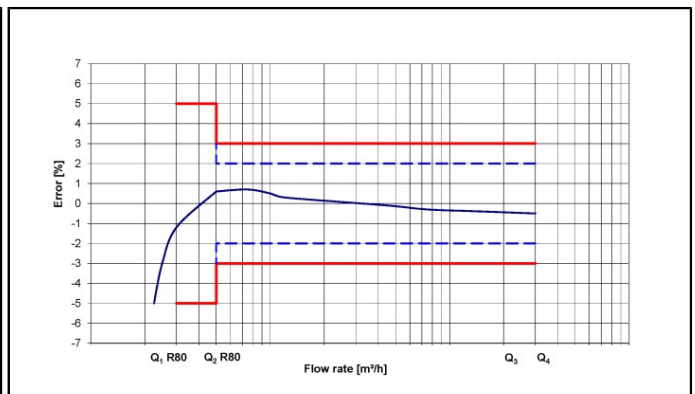


| | | | | | | |
|--|----------------|-------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------|
| Permanent flow rate | Q ₃ | m ³ /h | 2.5 | 2.5 | 2.5 | 4 |
| Overall length | L | mm | 80 | 110 | 130 | 130 |
| Overall length with coupling | L2 | mm | 160 | 190 | 210 | 228 |
| Connection thread on meter | | Inch | G ³ / ₄ B | G ³ / ₄ B | G ³ / ₄ B | G1B |
| Connection thread of coupling | | Inch | R ¹ / ₂ | R ¹ / ₂ | R ¹ / ₂ | R ³ / ₄ |
| Height | H | mm | 14 | 14 | 14 | 17 |
| Height (with segment cover and pulse output) | H1 | mm | 52 | 52 | 52 | 52 |
| Height (with radio segment) | H1 | mm | 69 | 69 | 69 | 69 |
| Diameter | Ø B | mm | 64 | 64 | 64 | 64 |
| Weight without coupling | | kg | 0.4 | 0.44 | 0.54 | 0.54 |
| Weight with coupling | | kg | 0.58 | 0.64 | 0.72 | 0.72 |

PRESSURE LOSS GRAPH / TYPICAL ERROR GRAPH



Pressure loss graph



Typical error graph